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Tough But Fair: The Moderating Effects of Target Status on the Relation Between Social Dominance Orientation and Fairness

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A thesis submitted in partial fulfillment of the requirements for the degree in Master of Science

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TOUGH BUT FAIR: THE MODERATING EFFECTS OF TARGET STATUS ON THE
RELATION BETWEEN SOCIAL DOMINANCE ORIENTATION AND FAIRNESS

(Thesis Format: Monograph)

by

Joel B. Armstrong

Graduate Program in Psychology

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science

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Abstract

The present research investigated the moderating effect of target status on the relation between social dominance orientation and fairness in either a positively or negatively framed limited resource allocation decision. Participants were asked to read medical case files about either a high or low status patient in need of a heart transplant, then assigned the patient a transplant priority rating based on information in the case file and rating criteria provided, before completing Sidanius and Pratto's Social Dominance Orientation scale. In Study 1, the positively framed allocation task, we found a significant interaction, in which low SDO individuals were less fair and more favourable when making decisions about a low status target, whereas high SDO individuals were less fair and more favourable when making decisions about a high status target. In Study 2, we again found a significant interaction when controlling for belief in a just world, such that low SDO individuals were less fair and more favourable to low status targets than high status targets, whereas high SDO individuals were equally fair to all targets, regardless of status. These results suggest that, on average, when allocating a limited resource, high SDO individuals follow fairness guidelines more closely than low SDO individuals.

Keywords: Justice, fairness, status, Social Dominance Orientation

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Tough But Fair: The Moderating Effects of Target Status on the Relation Between Social Dominance Orientation and Fairness

Global population is growing rapidly, and a fixed number of resources are being shared between more and more people. As a result, *distributive justice* (justice concerning the distribution of goods and services in society) is becoming more important than ever. The topic of distributive justice has received a great deal of attention in social psychology. One line of research has examined individual differences in willingness to follow fairness guidelines (e.g., treating everyone the same; distributing resources on an equitable basis). For example, openness to experience has been shown to relate to support for redistribution of resources (Jost & Hunyady, 2005).

The purpose of the research reported in this thesis was to investigate whether individual differences in social dominance orientation predict the extent to which people follow fairness guidelines. In the following sections, social dominance orientation will be described, fairness will be defined, and the possible relation between these concepts will be explained.

Social Dominance Orientation

Intriguingly, some recent research (Hafer, personal communication, May, 2011) suggests that those who are most comfortable with group disparity and hierarchical differences in society may be best at making tough but fair decisions. Specifically, Hafer found that individuals who were high in *Social Dominance Orientation* (SDO) were less likely than individuals who were low in SDO to provide a reward unfairly to a disadvantaged person (methodological details will be expanded later).

Social Dominance Orientation is a personality trait that measures one's preference for maintaining group-based hierarchies within social systems (Pratto, Sidanius, Stallworth, & Malle, 1994). SDO exists as an individual difference variable within the larger framework of Social Dominance Theory (SDT), which was created to explain why all observed societies organize themselves into group-based hierarchies, composed of at least one dominant group and at least one subordinate group (Sidanius, Pratto, Laar, & Levin, 2004). For the purposes of SDT, a dominant group is one that has disproportionate access to positive social value, such as education, medicine, or safety, whereas a subordinate group is one that has disproportionate access to negative social value, such as disease, punishment, or substandard housing (Pratto, Sidanius, & Levin, 2006). To explain the emergence of these groups, SDT focuses on group asymmetries at the level of the individual, the level of the group, and the level of the whole society (see Figure 1; Sidanius, Levin, Federico, & Pratto, 2001). At each level, there are "hierarchy enhancing" forces (e.g., SDO, ingroup violence, and certain parts of the criminal justice system) and "hierarchy-attenuating" forces (e.g., charitable donations, affirmative action, and income redistribution policies). These two sets of forces exist in a balance, and the relative strength of each dictates the degree of inequality between groups. Hierarchical equilibrium is said to exist when inequality is sufficient to satisfy dominant group members' need for hierarchy, without becoming morally repugnant or socially destabilizing (Sidanius et al., 2001).

SDO acts, within this context, as a variable that explains differences at the individual level that facilitate the maintenance of hierarchy. As such, it is not surprising that support for chauvinist policies, law and order policies, and military programs are

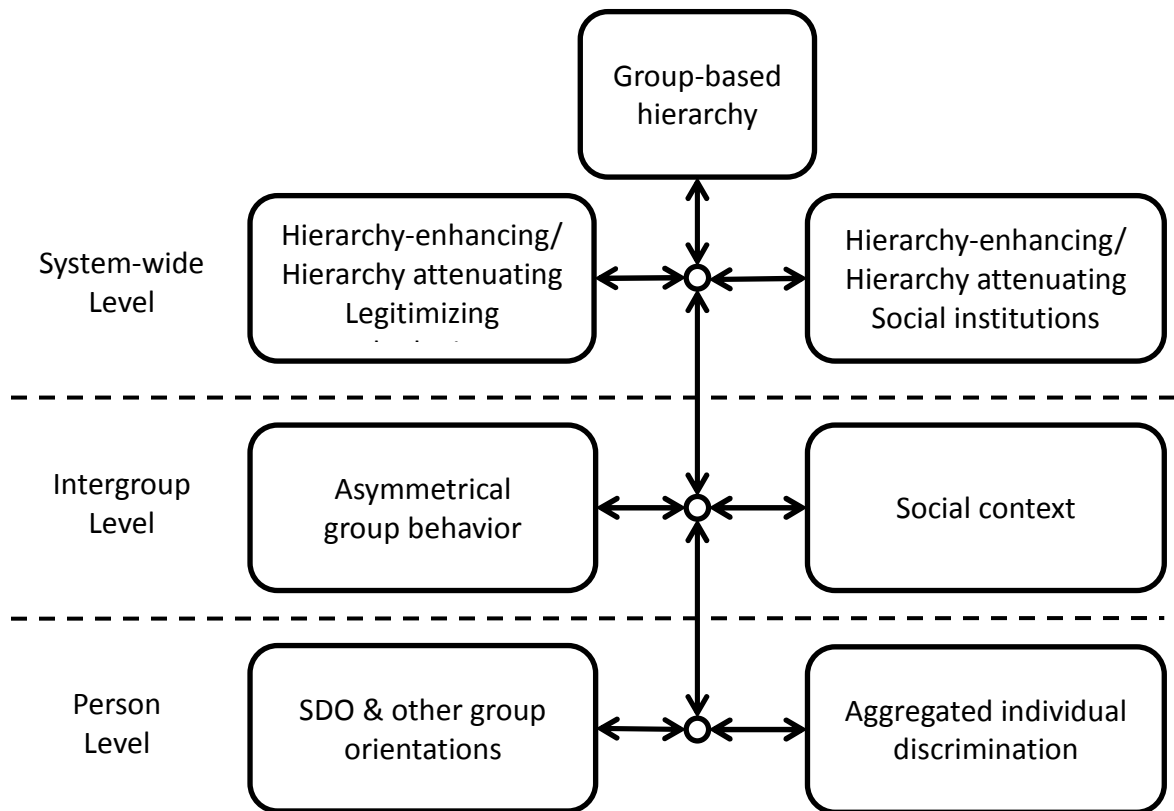


Figure 1. The trimorphic structure of group-based dominance in Social Dominance Theory.

positively correlated with SDO, whereas SDO is negatively correlated with support for gay rights, women's rights, social welfare policies, ameliorative racial policies, and interracial marriage (Pratto et al., 1994). Though these policies and beliefs seem redundant with conservatism—and, indeed, SDO is related to economic conservatism ($r = .54$; Crowson & Brandes, 2010)—it is important to note that each of these correlates has a distinct hierarchy-enhancing or hierarchy-attenuating effect. For instance, support for law and order policies allows dominant groups to maintain their privilege. In a number of societies studied around the world, subordinate group members are disproportionately imprisoned, tortured, and executed, even when controlling for higher rates of criminality (Pratto et al., 2006). In contrast, support for institutions like interracial marriage undermine the dominant group's disproportionate access to positive social value, because once married, subordinate group members gain at least partial access to the social value accessible to their partners and married couples in general, such as health benefits and tax breaks. It is important to remember that SDO is a measure of preference for group dominance, not individual dominance. In Pratto et al.'s (1994) initial validation of the scale, SDO was uncorrelated with the dominance subscales of the California Personality Inventory and the Jackson Personality Research Form in four out of five samples.

SDO may appear redundant with other individual difference variables, but a more nuanced look shows that SDO makes unique predictions that separate it from its correlates. For example, both right-wing authoritarianism (RWA) and SDO are considered among the most prominent individual difference variables thought to be responsible for prejudice (Duckitt, 2006), and as such could both be expected to predict

aggression towards outgroups. However, whether or not this is the case depends on whether the targets are members of a dominant group or a subordinate group. Henry, Sidanius, Levin, and Pratto (2005) examined this issue by asking American and Lebanese students their attitudes towards terror and intergroup violence. In the U.S., RWA and SDO both predicted increased support for fighting Middle Eastern terrorists, because fighting terrorists is both a submission to ingroup authority (hence, the RWA correlation) and a use of power that helps to secure America's dominant position on the global stage (hence, the SDO correlation). In Lebanon, however, higher RWA was predictive of support for violence against Western (U.S.) interests, but SDO was not. High SDO individuals, regardless of group membership, tend to support actions that maintain hierarchies and oppose actions that do not. As such, given that the U.S. is the dominant group, high SDO Lebanese individuals opposed action that would reduce the group differences between the U.S. and Lebanon, in keeping with SDT's description of the active contribution of subordinate group members to their own lower status.

Although both RWA and SDO are generally positively related to prejudice and negative stereotypes towards minorities (Whitley, 1999), research suggests that the mechanism by which these attitude structures lead to this prejudice is different. Individuals high in RWA are generally high in *dangerous world beliefs* (beliefs that the world is a dangerous place in which the safety and values of good people are threatened by bad people), whereas high SDO individuals tend to hold stronger *competitive world beliefs* (beliefs that the social world is a ruthless place in which force is justified and one has to fight to win; Sibley, Wilson, & Duckitt, 2007). Compatible with both of these perspectives, most groups that are the target of prejudice, such as homosexuals, can be

construed as both threatening to social order and threatening to the advantaged position of dominant groups. But when threats to social order and social dominance are dissociated, the differential effects of RWA and SDO can be seen clearly. For example, Duckitt (2006) found that RWA was more predictive of prejudice against rock stars than was SDO, presumably because rock stars represent a group that is high in perceived social deviance but also holds high status. SDO, however, was more predictive of prejudice than RWA when the target of prejudice was housewives, who are low status but not socially deviant.

Fairness

Fairness is typically conceptualized as a between-persons comparison, evaluating the presence or absence of matching ratios of inputs to outputs (Walster, Walster, & Berscheid, 1978). Fairness exists when an individual is receiving a similar proportion of inputs to outputs as other people. “Inputs” can include education, expertise, effort, and other factors that typically are associated with better outcomes, and “outputs” can include salary, status, and other valued states. For example, in the “ultimatum game,” players must accept or reject a single offer from another player. These decisions are strongly affected by offers made to other players; identical offers can be accepted or rejected based on comparisons to the offers to others (Falk, Fehr, & Fischbacher, 2003). Thus, between-persons comparisons play a key role in judgments of fairness.

These perceptions of fairness seem to be very important to people, with violations of fairness eliciting a range of negative behaviours and emotions. In the ultimatum game mentioned above, participants were motivated to punish players who they felt were distributing in-game resources unfairly (Falk et al., 2003). Mikula, Scherer, and

Athenstaedt (1998) had participants from 37 countries describe a range of situations that elicited negative emotions, such as fear, anger, disgust, shame, or sadness. Anger-producing events were found to be most often perceived as unfair. Furthermore, unfair events were judged as more immoral, more obstructive to goals, and having a more negative effect on relationships.

Further evidence for the importance of perceived fairness comes from the punishment literature. Darley (2009) found that, in the context of games in which trust and fairness are violated, participants will use their own resources to punish individuals who violate fairness. For instance, players will punish another player for failing to reciprocate when a third player acts in good faith and sacrifices personal resources for the good of the group. This tendency to punish violations of fairness holds even when the punisher will not be involved in future games with the transgressor, and when the punisher is completely anonymous, meaning that he or she cannot benefit from gaining a reputation as a player who should not be taken advantage of (Fehr & Fischbacher, 2004). This behaviour has been labeled *altruistic punishment* (Fehr & Gächter, 2002). In fact, punishment of fairness violations is associated with activation of reward centers in the brain, regardless of whether punishment is retributive or altruistic (Darley, 2009).

Strong negative reactions to violations of fairness have even been observed in non-human animals. In an experiment by Brosnan and DeWaal (2003), a capuchin monkey was offered a piece of cucumber in exchange for a pebble, a trade that she readily accepted. However, the monkey demonstrated significant agitation when she witnessed a monkey in an adjacent cage receive a more desirable grape for the same price. When the experimenter again offered the first monkey a cucumber in exchange for

a pebble, she demonstrated extreme agitation, and refused to exchange the pebble for the food at all, an action which capuchin normally engage in more than 95% of the time.

In spite of the strong preference for fairness, there are certain situations that reduce the impact of fairness as a decision rule. In a study on *the scope of justice* (the boundaries of when or to whom moral rules apply), Hafer, Conway, Cheung, Malyk, and Olson (2012) found that there is a curvilinear relation between psychological connectedness and the relevance of fairness. Historically, the scope of justice has been used primarily to explain negative, often large scale treatment such as genocide or other denials of rights (e.g., Opatow, Gerson, & Woodside, 2005). Hafer et al. (2012), however, found that exclusion from the scope of justice can be associated not only with negative, but also with positive behaviour. For example, when an individual is strongly psychologically connected to a target, such as a parent to a child, he or she may allocate positive resources to that target without consideration of whether the allocation is fair (e.g., whether it is similar to what others have received). Thus, fairness considerations are set aside, and the decision to help is made simply because the helper wants to assist the highly valued target.

Similarly, Batson, Klein, Highberger, and Shaw (1995) found that induction of empathy can also reduce the salience of fairness as a decision making rule and lead to decisions that benefit a single target at the expense of other, equally deserving participants. In their study, Batson et al. (1995) asked participants to read a story about a terminally ill child, named Sheri. Participants were offered an opportunity to recommend that Sheri be moved into an Immediate Help Group, in which she would get preferential beneficial treatment. It was made clear that the Immediate Help Group was more resource

intensive and that a number of children were already on the wait list, so moving Sheri into the group would be done at the expense of other, more needy children. Participants in the high empathy condition, who were instructed to try and imagine how the child felt and how her life had been affected by her illness, were significantly more likely to violate rules of fairness and offer help to Sheri than participants in the low empathy condition, even though participants in both conditions considered doing so to be less fair and less moral.

SDO and Fairness

It is not just empathy and psychological closeness that relate to selective application of fairness rules. There is also evidence that attitudes can influence such decisions, even when instructions for how to make decisions are clear. Kopko, Bryner, Budziak, Devine, and Nawara (2011) asked participants to engage in a simulation of a hand recount of ballots following a disputed election. They found that participants' party identification and stake in the election significantly predicted whether ambiguous ballots would be interpreted as a vote for or against their preferred candidate. There was also a significant effect of clarity of instructions. The more concrete and clear the instructions were, the less likely participants were to systemically interpret ambiguous ballots as votes for their candidate of choice. Still, clearly written instructions did not eliminate the effects of party identification and personal stake in election results; they only served to minimize them.

SDO is an attitude that also has significant implications in the domain of fairness and resource allocation. Amiot and Bourhis (2005) found that people who were high in SDO distributed resources in a manner that was discriminatory to outgroups and

favorable to their own ingroup, regardless of whether the allocation was positive (e.g., salary increases) or negative (e.g., increases in unpaid work hours). RWA, meanwhile, did not predict differential distribution between ingroup and outgroup members for either positive or negative allocations.

Pratto, Tatar, and Conway-Lanz (1999) found that people who were high in SDO were more likely to focus on merit, rather than need, when allocating resources. Participants were presented with a series of scenarios in which they had to allocate a resource to one of two options. In each scenario, one option was clearly more in need of the resource, whereas the other option was more meritorious. In one example, participants were asked to choose between closing two schools, one with high test scores, but which was in a neighbourhood with an alternate community centre, and another with lower test scores, but no alternate location to serve as a community centre for the neighbourhood. In these forced choice decisions, high SDO individuals favoured the meritorious party over the needy party, whereas those lower in SDO favoured the needy party over the meritorious. In almost every scenario, however, the needy party was clearly low status (e.g., a paper boy who used his money to help his family; a small cooperative bank who focused on loans for single mothers and the working class). As such, it is not necessarily the case, as the authors conclude, that those high in SDO were allocating in favour of the meritorious. Rather, it is equally plausible that they were merely allocating resources away from the needy towards the higher status targets.

More recent research supports the latter possibility. Son Hing et al. (2011) hypothesized that high SDO individuals demonstrate a preference for meritocracy only when it serves as a hierarchy-enhancing ideology. The authors distinguished between

prescriptive and descriptive meritocracy beliefs. Prescriptive meritocracy beliefs mean that meritocracy is a fair and equitable rule for distributing resources, whereas descriptive meritocracy beliefs mean that resources as they are currently distributed reflect a fair and equitable distribution based on merit (in other words, the people who have the most resources must have earned them). Results showed that high SDO was associated only with endorsement of descriptive meritocracy beliefs, in which belief in meritocracy serves a system-justifying purpose. However, lower SDO scores were associated with endorsement of prescriptive meritocracy beliefs. All of this research regarding SDO and the fair allocation of resources supports the core idea of SDO, which is that people who prefer to maintain hierarchies in society will act to do so when given the opportunity.

Current Studies

Recently, C. L. Hafer (personal communication, May, 2011) found that participants who were high in SDO were more likely to follow rules of fairness than participants who were low in SDO, when fair decisions meant that a sympathetic figure would not receive a beneficial outcome (similar to the study by Batson et al., 1995). Specifically, participants were given a set of guidelines for deciding whether or not a former child soldier would be transferred from prison to the more supportive environment of a refugee camp. After reading the story of a specific former child soldier who, according to provided guidelines, clearly qualified as a moderate priority to be moved from the prison to the refugee camp, participants rated on a scale of 1 to 5 how high a priority the child should receive. Participants high in SDO were more likely to rate the child the “correct,” moderate priority (3), whereas low SDO participants tended to give the child a higher priority rating. These results suggest that low SDO individuals were

recommending more favorable treatment for the target than was fair, whereas high SDO individuals were making more fair decisions about how to distribute resources.

However, in Hafer's study, the child soldier was a low status individual. Thus, to conclude that high SDO individuals are truly more fair, research must show that high SDO individuals are also more willing to follow guidelines requiring fair distribution of resources to high status individuals. Given that the core component of the SDO construct is a desire for group based dominance (Sidanius et al., 2004), it seems plausible that Hafer's findings reflected the desire of high SDO individuals to behave negatively toward a low status target, rather than a concern with fairness. Because SDO is not just acceptance of group hierarchies, but also a desire for them, high SDO individuals may be motivated to give preferential treatment to high status individuals.

This reasoning illustrates the concept of behavioral asymmetry, a key component of SDT (Sidanius, Levin, Federico, and Pratto, 2001). Behavioral asymmetry describes the discrepancy in behavior between high and low SDO individuals, typically in regards to ingroup favoritism. High SDO individuals, by definition, favor high status groups. When members of subordinate groups are high in SDO, those individuals are motivated to offer favorable treatment to dominant group members, regardless of the effect this treatment has on their ingroup (e.g., African Americans who are accused of being an "Uncle Tom" because they act preferentially toward whites). This is one of the most intriguing aspects of SDT; high SDO individuals treat high status groups preferentially, regardless of their own status. In doing so, high SDO individuals from disadvantaged groups actively participate in the maintenance of the hierarchy in which they are disadvantaged, even if their behaviour may be actively harmful to their ingroup.

Conversely, individuals who are low in SDO are against group-based hierarchies. As such, they prefer to act in ways that attenuate hierarchies, regardless of ingroup identification.

Interpreting the results from Hafer's study in this context, we hypothesized that SDO was negatively related to favorable treatment of the low status target, rather than positively related to fair treatment. Therefore, in our first study, we varied the status of the target of help and predicted an interaction of SDO by target status, such that high SDO individuals making a decision about a low status target would be more fair (but less favorable) compared to low SDO individuals, whereas high SDO individuals making a decision about a high status target would be less fair (but more favorable) than low SDO individuals. In other words, we hypothesized that individuals who are high in SDO would allocate resources disproportionately in favor of a high status person compared to a low status person, whereas individuals who are low in SDO were expected to allocate resources disproportionately in favor of a low status person compared to a high status person.

Study 1

Expanding the experimental design of C. L. Hafer (personal communication, May, 2011), participants were asked to make a decision about the fair allocation of resources for either a high status target or a low status target. Dispositional empathy, as well as several perceptions of the target, were measured to explore whether they predicted participants' decisions and as possible mediators of the effects of the manipulations.

Method

Participants. A total of 108 participants were recruited online using Mechanical Turk (MTurk), based on the recommendation of Simmons, Nelson, and Simonsohn (2013), who suggest that properly powered MTurk studies should have a minimum of 50 participants per cell. Three participants were excluded from the final analyses because of missing data which made it impossible to test our hypothesis. Participants were compensated \$0.25 for their participation.

Materials. Participants first read a fictitious newspaper article that was designed to familiarize them with the issues surrounding organ transplants--specifically, the relative scarcity of organs. Using real statistics from the United States Department of Health and Human Services, participants were told of the chronic organ shortages that cause patients to spend months or years awaiting available organs. Next, participants read a letter from the Michigan chapter of a fictional non-profit organization called the American Organ Donation Society, which claimed to be seeking layperson input in evaluating the priority of individual cases, in accordance with organizational bylaws. The letter also included a rubric which described the medical criteria used as guidelines for establishing patient priority.

After reading the criteria, participants were given a patient case file (see Appendix A for full versions of the files). They were told that the patient was randomly chosen, but all participants were given the file for a patient named John Kassa, which included some personal information (e.g., age, number of children), as well as the details of his medical history necessary to complete the priority ranking (e.g., time on wait list, general condition). The case file varied by condition. In the low status condition, John

Kassa was described as a grocery store clerk who made \$28,000 a year, whereas in the high status condition, he was described as a business owner who made \$160,000 a year.

Post-Decisional Questionnaire. After assigning a priority rating, participants were asked to complete a series of questions assessing perceptions that might have been relevant to their rating. Specifically, on a scale from *not at all* (1) to *very much* (7), participants rated: perceived similarity to the patient, the relevance of justice to their decision (two items), how much they cared for the patient's well-being, perceived identification with the patient, the importance of treating the patient fairly, the extent to which they could imagine the patient's feelings (two items), perceived deservingness of the patient, and perceived need of the patient. Additionally, participants rated their mood on a scale of *very negative* (1) to *very positive* (7). See Appendix A for full set of questions.

Fairness ratings. Our primary dependent variable was decision fairness, which was measured using a rating scale from *low priority* (1) to *high priority* (5) with a *moderate priority* rating (3) being the correct, fair decision based on the patient case file and the rating criteria provided (see Appendix A).

Social Dominance Orientation. Social dominance orientation was measured using the Social Dominance Orientation-6 Scale developed by (Pratto et al., 2006). This is a 16-item scale in which participants are required to rate statements such as "Some groups of people are simply not the equals of others" and "Superior groups should dominate inferior groups" on scales from *strongly disagree* (1) to *strongly agree* (7). The SDO-6 Scale has been demonstrated to have good internal reliability ($\alpha = .83$) as well as good test-retest reliability; participants tested at a three month interval showed a high

correlation between SDO scores at Time 1 and Time 2, $r = .81$, $p < .01$ (Pratto et al., 2006). In our sample, the SDO-6 scale demonstrated high internal reliability, $\alpha = .90$.

Trait empathy ratings. Empathy was measured using the Interpersonal Reactivity Index (IRI; Davis, 1983). The IRI is a 28-item self-report measure consisting of four 7-item subscales. The Perspective-Taking subscale assesses the tendency to adopt another's point of view (e.g., "I try to look at everybody's side of a disagreement before I make a decision"). The Fantasy subscale assesses the tendency to adopt the feelings of a fictitious character, such as while reading a book or watching a movie (e.g., "I really get involved with the feelings of the characters in a novel"). The Empathic Concern subscale assesses feelings of sympathy and concern for unfortunate others (e.g., "When I see someone being taken advantage of, I feel kind of protective towards them"). Finally, the Personal Distress scale measures self-oriented feelings of anxiety or distress in uncomfortable social situations (e.g., "In emergency situations, I feel apprehensive and ill-at-ease"). The convergent and discriminant validity of these four indices are well established, as is the correlation of the overall IRI with other unidimensional measures of empathy (see Davis, 1983). In our sample, the IRI demonstrated high internal reliability, $\alpha = .82$.

Procedure. Online participation took approximately 10-15 minutes. Participants began by reading the fake newspaper article outlining the problem of organ shortages in America, and the letter from a fictional non-profit organization requesting the participant's input regarding a potential organ recipient. Participants were then presented with a case file for a fictional low or high status patient, and were asked to assign a priority rating to the patient based on the information contained in the patient file. Note that participants were not explicitly told to follow the guidelines provided in the letter.

Next, participants were asked to complete the post-decisional questionnaire. Finally, participants completed the SDO-6 Scale and the IRI.

Results

We tested our hypothesis by regressing priority rating scores on target status, mean SDO scores, and the interaction term of the two. The regression analysis confirmed our hypothesis. There was a significant interaction between SDO and target status, such that the relation between SDO and priority ratings was moderated by target status, $r^2 = .045$, $\beta = .216$, $p = .032$ (see Figure 2). The interaction does not seem to be driven by just one of the subscales of SDO; in fact, the results appear to be driven almost equally by each subscale. Substituting the SDO-Dominance subscale for the overall SDO score and the status by SDO interaction term, we find that the interaction is only marginally significant, $\beta = .365$, $p = .096$. Doing the same for the SDO-Egalitarian subscale, we again find that the interaction is only marginally significant, $\beta = .371$, $p = .096$. Because SDO was measured after the target status manipulations, we checked to ensure that SDO did not differ as a function of condition. Participants in the low status ($M = 2.86$, $SD = 1.25$) and high status ($M = 2.88$, $SD = 1.19$) conditions did not differ significantly in their mean SDO scores, $t(103) = .098$, $p = .922$.

Though simple effects and simple slopes analyses were not significant, there are a number of supplementary analyses that allow interpretation of the interaction. First, we performed an a priori contrast of our specific hypothesis that participants would be more favourable and less fair towards the target that was congruent with their level of SDO (e.g., low SDO individuals will give higher ratings to the low status target than the high status target). Participants were divided into high SDO ($M = 3.88$, $SD = .60$) and low

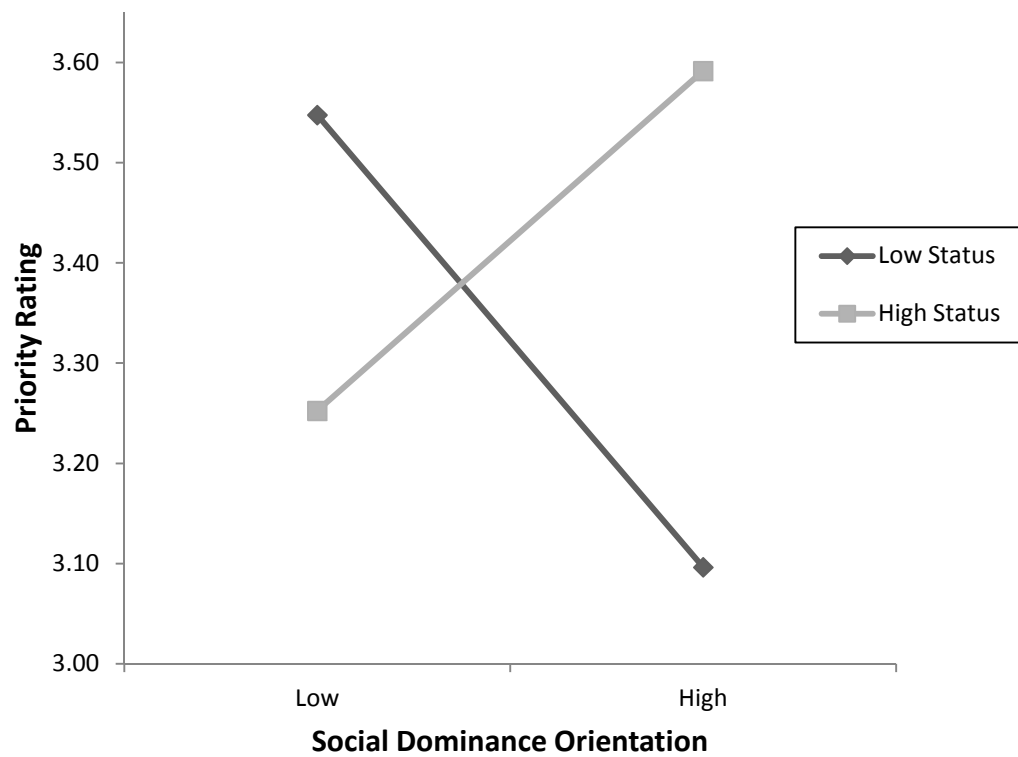


Figure 2. The moderating effects of target status on priority rating in a positively framed allocation decision for high and low SDO individuals at one standard deviation above and below the mean.

SDO ($M = 1.80$, $SD = .68$) groups using a median split. This contrast yielded a significant result ($t(103) = 1.90$, $p = .030$), providing confirmation for our hypothesis that people would provide significantly higher ratings for their attitude congruent group ($M = 3.53$, $SD = .87$) than for their attitude incongruent group ($M = 3.23$, $SD = .73$). In addition, the relation between SDO and fairness was examined in each of the target conditions independently, by testing the significance of the bivariate correlations using one-tailed tests of significance (given the a priori nature of our predictions). In the low status target condition, SDO was significantly and negatively related to priority rating: as SDO increased, the priority rating decreased (and fairness increased), $r = -.227$, $p = .039$. In the high status target condition, the relation between SDO and priority rating was positive, but only marginally significant, $r = .218$, $p = .077$. Regardless, this trend was compatible with our hypothesis, because as SDO increased, priority rating increased (and fairness decreased).

When added as a predictor to the regression model, empathy did not add significantly to prediction of priority rating, $\beta = .14$, $p = .176$, and the interaction remained significant ($r^2 = .063$, $\beta = .223$, $p = .027$). Also, trait empathy correlated only marginally with participants' fairness decisions, $r = .192$, $p = .076$. Each of the post-decisional items was regressed on status, SDO, and the interaction term of the two. None of the items was significantly predicted by the interaction term, suggesting that they were not mediating factors responsible for the status by SDO effect. See Table 1 for inter-correlations among the measures. Main effects of target status on post-decisional items were examined as well, but were almost entirely non-significant, and did not clarify the mechanism responsible for the interaction (see Table 2 for main effects of status).

	SDO	Empathy	Priority	Similar	Justice1	Well-being	Identity	Fairness	Imagine	Justice2	Feel	Desire
-6 scale	-	-.330**	-.023	.186	-.050	-.212*	.234*	-.330**	.177	-.144	.130	-.4
Personal	-.330**	-	.120	-.140	.377**	.400**	.005	.299**	.252**	.310**	.297**	.28
ded to the patient	-.023	.120	-	.042	.088	-.018	.226*	-.087	.058	0.125	.038	-.0
to the patient	.186	-.140	.042	-	-.047	.001	.493**	-.190*	.216*	-.033	.096	-.2
of justice and	-.050	.377**	.088	-.047	-	.559**	.159	.380**	.168	.532**	.234*	.40
of patient's	-.212*	.400**	-.018	.001	.559**	-	.270**	.528**	.161	.479**	.155	.51
on with the	.234*	.005	.226*	.493**	.159	.270**	-	.178	.294**	.167	.218*	-.0
of treating the	-.330**	.299**	-.087	-.190*	.380**	.528**	.178	-	.040	.405**	.070	.55
is can imagine	.177	.252**	.058	.216*	.168	.161	.294**	.040	-	.217*	.588**	-.0
if considering	-.144	.310**	0.125	-.033	.532**	.479**	.167	.405**	.217*	-	.315**	.40
eling what the	.130	.297**	.038	.096	.234*	.155	.218*	.070	.588**	.315**	-	.0
ess of help for	-.444**	.286**	-.004	-.229*	.405**	.512**	-.057	.556**	-.032	.407**	.066	
p for the	-.468**	.353**	.050	-.134	.454**	.469**	.082	.503**	.087	.480**	.171	.69
mood	.258**	.180	.210*	-.027	.243*	.194*	.193*	-.033	.220*	.230*	.320**	-.0

. level (two-tailed).

.1 level (two-tailed).

2

Effects of Status on Post-Decisional Questionnaire Items

	Low Status Target		High Status Target		t-values	df	p
	M	SD	M	SD			
Perceived similarity to the patient	3.43	1.74	3.11	1.72	0.94	106	.350
Perceived relevance of justice and fairness	4.95	1.36	4.60	1.36	1.33	106	.18
Perceived importance of patient's well-being	5.74	1.09	5.16	1.30	2.54	105	.013
Perceived identification with the patient	4.05	1.56	4.07	1.50	0.06	106	.94
Perceived importance of treating the patient fairly and justly	5.51	1.33	5.53	1.12	0.10	106	.91
Extent that participants can imagine how the patient feels	4.83	1.58	4.75	1.50	0.25	105	.80
Relative importance of considering justice and fairness	5.40	1.40	5.14	1.32	0.99	104	.32
Perceived extent of feeling what the patient feels	4.73	1.42	4.96	1.35	0.83	106	.40
Perceived deservingness of help for the patient	6.02	1.10	5.89	1.02	0.62	105	.53
Perceived need of help for the patient	5.87	1.24	6.07	1.00	0.86	106	.39
Participant's current mood	5.08	1.30	4.91	1.20	.688	105	.49

ation is significant at the .05 level (two-tailed).
lation is significant at the .01 level (two-tailed).

Discussion

The effects of SDO on fairness of priority ratings were moderated by target status. When making a decision about a low status target, consistent with Hafer (personal communication, May, 2011), people high in SDO assigned a less favorable but more fair priority rating, according to the guidelines provided, compared to individuals who were low in SDO. When making a decision about a high status person, however, high SDO individuals recommended unfairly favorable treatment, whereas people who were lower in SDO recommended a priority rating that was more fair, but less favorable. It should be noted that “high SDO” individuals did not have a score that was high on the SDO scale in an absolute sense. Rather, they were high only relative to the other participants. However, absolute means of just 2.5 on the SDO scale have been shown to be predictive of self-selection to hierarchy-enhancing careers (Pratto, Stallworth, Sidanius, & Siers, 1997) or discrimination towards outgroups (Pratto et al., 1999), and the “high SDO” group in the median split analyses reported above scored a mean of 3.88 on the 1 to 7 scale.

What were the psychological mechanisms underlying the interaction? Items from the post-decisional questionnaire were generally uninformative, as none of them were significantly predicted by the status by SDO interaction. It seems unlikely that ingroup favoritism (which has been associated with SDO in past research) was responsible for the current findings. Very few participants were likely business owners making \$150,000 per year, but salary was the only distinguishing information about the target.¹ In addition, to my knowledge, all of the research that has linked SDO and preferential allocation to the

¹ According to Ipeirotis (2010), over 80% of the users of MTurk are from the US or India, and less than 5% of American users and essentially 0% of Indian users have household incomes over \$150,000.

ingroup has used a task in which participants divided a shared pool of resources between their ingroup and an outgroup (e.g., Amiot & Bourhis, 2005). By asking participants to make a decision about a single person with little distinguishing information, the present study reduced the likelihood that ingroup status would have a significant impact.

Another factor closely associated with SDO-related discrimination is perceived competition (e.g., Crowson, 2009; Küpper, Wolf, & Zick, 2010). Because our fairness decision was framed in an organ donation context, perceived personal relevance of the resource being allocated was unlikely to have primed competitive world beliefs in a way that would have affected the priority rating. For one thing, need for an organ is relatively rare (1 in 2,600 Americans; United Network for Organ Sharing, 2012), so it is unlikely that participants in the study would be directly affected by this decision. Previous research has demonstrated that the prejudice associated with SDO is eliminated when there is no perceived competition between groups (Pratto & Glasford, 2008). Even if they did know someone who was in need of an organ transplant, the relevant other would have to be sufficiently psychologically close and specifically in need of a heart transplant in order for the fairness rating task to elicit any sort of perceived competition. Given these caveats, it seems unlikely that the effect of SDO on priority rating was driven by perceived competition.

Thus, the findings may reflect the direct effects of SDO. As Sidanius, Pratto, van Laar, and Levin (2004) said, "...even after one is able to control for a wide variety of the situational, occupational, and socialization factors thought to contribute to SDO, we should still expect to find reliable individual differences in SDO, largely attributable to temperamental or personality factors." One important aspect of the current finding is the

situation in which the effect was found. In a context stripped of competition, perceived threat, and ingroup affiliation, and in direct violation of explicit instructions on how to fairly allocate a scarce resource, people high in SDO still chose to allocate resources disproportionately in favor of the high status patient, and people low in SDO chose to allocate resources disproportionately in favor of the low status patient.

Study 2

The design of this experiment was similar to that of Study 1, but with several modifications. The post-decisional questionnaire was shortened from 12 items to 6, by eliminating redundant or similar questions (e.g., “How relevant do you feel justice or fairness is to how this patient is treated?” and “How important do you feel it is that this patient is treated according to what is fair or just?”). A measure of household income was added to ensure that the effect in Study 1 was not driven by ingroup favouritism. We also expanded the priority rating scale from a five point scale to a seven point scale. In the initial study, relatively few participants (14) were unfairly unfavourable: less than 13% of participants suggested a priority rating lower than three out of five. Because of this, the majority of the variance in our study was restricted to three options. By expanding the rating scale to 7, we could use rating labels that kept our data comparable to Study 1, while allowing more opportunity for variance in the upper portion of the scale, where responses were likely to be concentrated. Another significant change was the addition of a second rating for each participant. By having each participant rate both a high and a low status target, our analysis shifted from between-subjects to within-subjects, which allows for a more powerful test while reducing the error variance resulting from individual differences between participants.

The IRI was dropped, because it was unrelated to the obtained interaction, and it was replaced with the global belief in a just world scale, in order to control for just world beliefs. Just world beliefs have been shown to correlate with SDO (Pratto et al., 1994), because they function as a hierarchy-enhancing legitimizing myth. This would suggest that high SDO individuals might be acting in an unfairly favourable way towards the high status target because of their belief in a just world. That is, they may think that the high status target deserves favourable treatment because he would not be wealthy unless he deserved to be. Alternatively, strong beliefs in a just world (among high SDO individuals) might instead (or also) motivate helping behaviour to low status targets in order to make the world more fair. Because of these unclear, but potentially significant effects of just world beliefs on the priority rating task, we decided it would be best to control for just world beliefs².

The final and most significant change was to frame participants' allocation decisions negatively rather than positively. In Study 1, participants were asked to give a priority rating to previously unrated patients, with higher priority ratings reflecting a positive allocation. In the current study, participants were told that all patients had previously been given a high priority rating, but the lack of organs now required that some patients be lowered in priority. Thus, participants were asked to decide whether previously highly-rated patients should be assigned a lower priority. Previous research has made it clear that people assign value differently to the same objective outcome when it is given vs. when it is taken away (Kahneman & Tversky, 1979). As such, we thought that testing participants ratings in the negatively framed allocation context would increase

² Although some of the variance attributable to SDO is represented by participants' just world beliefs, we were primarily interested in the unique variance of SDO.

generalizability of the findings from Study 1. This negative framing was not expected to change the pattern of results: we hypothesized that participants would be unfairly favourable towards their attitude congruent group, and more fair, but less favourable, towards their attitude incongruent group.

Method

Participants. A total of 149 participants were recruited online using MTurk, based on the 50 participants per cell minimum recommended by Simmons, Nelson, and Simonsohn (2013), and were compensated \$0.25 for their participation. Ten participants were removed because of missing data which made it impossible to test our hypothesis. Another 13 participants were removed because they failed to correctly answer a question designed as an attention check, leaving 126 participants in the final analyses.

Materials. Participants again read the same fictitious newspaper article as in Study 1 to familiarize them with the issues surrounding organ transplants. Next, participants read the letter from the Michigan chapter of the American Organ Donation Society, which sought layperson input in evaluating the priority of individual cases, in accordance with organizational bylaws. The letter also included a rubric which described the medical criteria used as guidelines for establishing patient priority. However, the letter in this study differed in one important way from the letter in Study 1. Participants were told that the number of available organs was going to be even smaller than initially projected. As a result, participants would be seeing the files of patients who were previously given a high priority to receive an available organ and would be asked to re-evaluate these patients according to “significantly more stringent guidelines”. Participants were then presented with the new rubric.

After reading the criteria, participants were given two patient case files. Again, they were told that the patients were randomly chosen, but all participants were given one file for a grocery store clerk named John Kassa, who made \$28,000 a year, and a second file for a business owner named Perry Dimery, who made \$145,000. Other than that, the patients were very similar in terms of both personal information (e.g., age, marital status, number of children) and the details of their medical history necessary to complete the priority ranking (e.g., time on wait list, general condition; see Appendix B for details).

Post-decisional questionnaire. After assigning a priority rating, participants were asked to complete a series of questions assessing perceptions that might have been relevant to their rating. Specifically, on a scale from *not at all* (1) to *very much* (7), participants rated: perceived similarity to the patient, the relevance of justice to their decision, how much they cared for the patient's well-being, perceived identification with the patient, and perceived deservingness of the patient. Participants also rated their mood on a scale of *very negative* (1) to *very positive* (7). (see Appendix B for full set of questions).

Fairness ratings. Our primary dependent variable was again decision fairness, which was once more measured using a rating scale. But this time, the answer scale was 7-points, ranging from *low priority* (1) to *high priority* (7), with a *moderate priority* rating (4) being the correct, fair decision based on the patient case file and the rating criteria provided.

Social dominance orientation. Social dominance orientation was again measured using the Social Dominance Orientation-6 Scale developed by Pratto et al. (2006). In our sample, the SDO-6 scale had high internal reliability, $\alpha = .91$.

Just world beliefs. Just world beliefs were measured using the Global Belief in a Just World Scale (GBJWS; Lipkus, 1991). The GBJWS is a 16-item scale in which participants are required to rate statements such as “I feel that people get what they are entitled to have” and “I basically feel that the world is a fair place” on scales from *strongly disagree* (-3) to *strongly agree* (3). It has been shown to have acceptable internal reliability ($\alpha = .83$; Lipkus, 1991). In our sample, the GBJWS scale demonstrated high internal reliability, $\alpha = .88$.

Procedure. Online participation took approximately 10-15 minutes. Participants began by reading the fake newspaper article outlining the problem of organ shortages in America, and the letter from a fictional non-profit organization requesting the participant’s input regarding the re-ranking of previously high priority potential organ recipients. Participants were then presented with case files for fictional low and high status patients and were asked to assign priority ratings to the patients based on the information contained in the patient files. Participants were asked to carefully read the rating criteria, but were not explicitly told to follow the guidelines provided in the letter. Participants were asked to complete the post-decisional questionnaire after assigning a rating to the first patient presented to them, before reading and responding to the file of the second patient. Finally, participants completed the SDO-6 Scale and the GBJWS, as well as answering several demographic questions.

Results

Our primary analysis tested our hypothesis by regressing priority ratings scores on target status, mean SDO scores, and the interaction of target status and mean SDO scores, with BJW included as a control variable. We found partial support for our hypothesis.

Note that, although we attempted to mirror the analytic techniques used in Study 1, some differences were necessary given the constraints of within-subjects analyses. Our initial analysis did not reveal a significant interaction between target status and SDO on priority ratings, $F(1,124) = 2.61, p = .101$. However, when the planned covariates, BJW and household income, were included, the interaction became significant, $F(1,122) = 6.75, p = .011$. Household income did not significantly add to this model ($F(1,122) = 2.26, p = .135$), nor did it correlate with ratings for low status targets ($r = -.149, p = .095$), ratings for high status targets ($r = -.068, p = .450$), SDO ($r = -.128, p = .152$), or BJW ($r = -.012, p = .898$). As a result, household income was dropped from all subsequent analyses. Running our primary analysis again, with only BJW as a covariate, we again found a significant interaction, $F(1,123) = 5.76, p = .018$, which is illustrated in Figure 3. As in Study 1, the interaction did not seem to be driven by just one subscale of SDO. Both the SDO-Dominance subscale and SDO-Egalitarian subscale produced marginally significant interactions when controlling for BJW ($F(1,123) = 3.87, p = .051$, and $F(1,123) = 3.31, p = .071$, respectively).

Tests of the simple slopes indicate that SDO was a significant negative predictor of ratings of low status targets ($\beta = -.249, t(1,123) = -2.56, p = .012$), but not a significant predictor of ratings of high status targets ($\beta = -.051, t(1,123) = -.51, p = .614$). Though software limitations for conducting post hoc tests on within-subject design with a continuous predictor prevent a test of simple main effects, an ad hoc analysis allowed us to compare differences in priority ratings within levels of SDO. Participants were separated into high SDO ($M = 3.65, SD = .60$) and low SDO ($M = 1.74, SD = .59$) groups, using a median split. Low SDO individuals provided a significantly higher priority rating

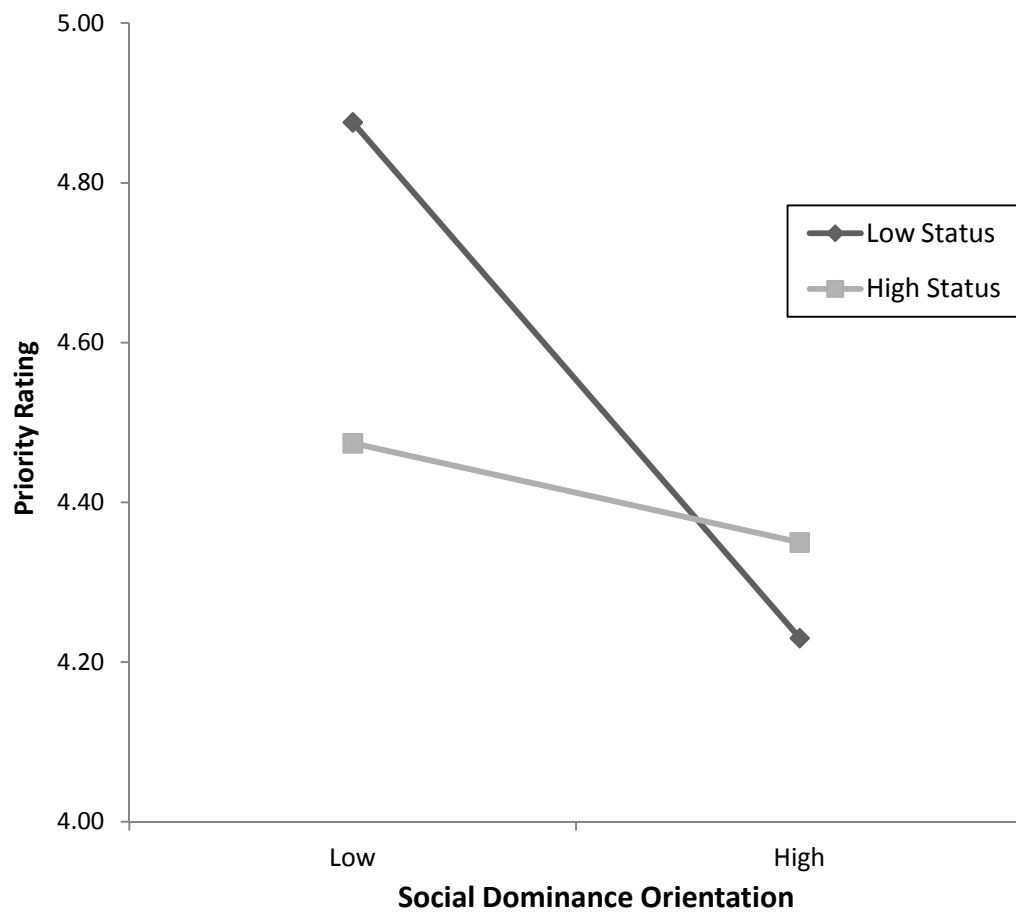


Figure 3. The moderating effects of target status on priority rating in a negatively framed allocation decision for high and low SDO individuals at one standard deviation above and below the mean. Belief in a just world was included as a covariate.

for the low status target ($M = 5.40$, $SD = 1.34$) than the high status target ($M = 4.92$, $SD = 1.15$; $t(1,62) = 3.51$, $p = .001$). High SDO individuals, however, did not differ significantly in the priority ratings assigned to the low status target ($M = 5.19$, $SD = 1.26$) and the high status target ($M = 5.00$, $SD = 1.27$; $t(1,62) = 1.368$, $p = .176$). Again, we performed an a priori contrast of our specific hypothesis that participants would be more favourable and less fair towards the target that was congruent with their level of SDO. Participants gave marginally higher ratings to their attitude congruent group ($M = 5.19$, $SD = 1.31$) compared to ratings for their attitude incongruent group ($M = 5.05$, $SD = 1.21$; $t(1,125) = 1.41$, $p = .085$). Overall, it seems that in a negatively framed allocation decision, low SDO individuals behaved as we hypothesized, acting more favourably towards the low status target than towards the high status target. High SDO individuals, however, more closely followed the fairness guidelines and were equally favourable (and equally harsh) to both high and low status individuals.

Regressing each of the post-questionnaire items on SDO, target status, and the interaction term revealed no significant interactions, suggesting these perceptions were not mediating the effects of SDO on priority ratings. Care for the patient's well-being, believing the patient deserved help, perceived similarity to the patient, and identification with the patient revealed significant relations, and these were all main effects of SDO, independent of target status (high SDO scores were associated with less care for the patient's well-being, lower ratings of patient deservingness, higher perceived similarity to the patient, and higher levels of identification with the patient). See Table 3 for inter-correlations among the measures. Main effects of target status on post-decisional items

able:	SDO	BIW	PRLS	PRHS	Income	Similar	Justice	Well-being	Identity	Deserv
DO-6 scale	-	.469**	-.101	.021	-.128	.184*	.065	-.186*	.203*	-.382**
Interpersonal	.469**	-	.199*	.131	-.012	.193*	.270**	.192*	.221*	-.023
igned to the low	-.101	.199*	-	.620**	-.149	.057	.239**	.366**	.145	.325**
igned to the high	.021	.131	.620**	-	-.068	.022	.291**	.277**	.093	.275**
Income	-.128	-.012	-.149	-.068	-	-.096	-.113	-.015	-.005	.047
y to the patient	.184*	.193*	.057	.022	-.096	-	.272**	.049	.624**	.057
ce of justice and	.065	.270**	.239**	.291**	-.113	.272**	-	.229**	.302**	.230*
nce of patient's	-.186*	.192*	.366**	.277**	-.015	.049	.229**	-	.117	.483**
ation with the	.203*	.221*	.145	.093	-.005	.624**	.302**	.117	-	.011
igness of help for	-.382**	-.023	.325**	.275**	.047	.057	.230*	.483**	.011	-
nt mood	.132	.205*	.066	.052	-.113	.213*	.132	.059	.271**	.066
	-.217*	-.159	.014	-.039	.121	-.058	.027	.090	-.132	-.007

.05 level (two-tailed).
e .01 level (two-tailed).

were again examined, and were again non-significant (see Table 4 for main effects of status).

Discussion

The effects of SDO on fairness of priority ratings were once again moderated by target status. The pattern, however, was somewhat different than in Study 1. Low SDO individuals demonstrated the same pattern as in Study 1, such that they were more favourable and less fair when assigning a priority rating to a low status target than when

making a judgment about a high status target. High SDO individuals were equally fair, regardless of target status, and were significantly more fair and less favourable than low SDO individuals when assigning priority ratings to the low status target. Once again, it is worth noting that “high SDO” does not denote individuals that had a score that was high on the SDO scale in an absolute sense, but rather a score that was high relative to the other participants (“high SDO” participants in the median split analyses scored a mean of 3.65 on the 1 to 7 scale).

There are a number of mechanisms we can rule out in this study, as we did in the first. We can once again conclude, with even more confidence, that the effect is not driven by ingroup favoritism. Because participants could distinguish between targets based only on occupation and salary, household income would be the primary determinant of ingroup vs. outgroup status. But household income did not add to our regression model, nor did it correlate in a meaningful way with any variables that would imply a role in individuals’ decision making. It also remains unlikely that perceived competition was driving the effect, because the resource being allocated was unlikely to be personally relevant to the participants, for the same reasons given after Study 1.

on Post-Decisional Questionnaire Items

	Low Status Target		High Status Target		<i>t</i> -values
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
clarity to the patient	3.88	1.62	3.94	1.75	.201
variance of justice and	4.88	1.33	5.03	1.36	.658
importance of patient's	5.69	1.27	5.92	1.16	1.07
identification with the	3.89	1.62	4.13	1.67	.814
availability of help for	6.02	1.17	6.23	1.11	1.03
current mood	5.14	1.32	5.13	1.65	.044

the .05 level (two-tailed).
at the .01 level (two-tailed).

These results match more closely with Hafer's (personal communication, 2011) initial results, in which high SDO individuals were more fair than low SDO individuals. Her speculative interpretation was that the differences related to SDO were a function of differences in empathy. Although trait empathy is negatively related to SDO, and low SDO individuals are more empathetic in general, the patterns demonstrated with both the IRI in Study 1 and the post-decisional items in both studies suggest it was not empathy driving our results.

The interaction in Study 2, however, is consistent with a psychological process closely related to empathy, called deontological inclination. An fMRI study by Greene et al. (2001) indicated that moral decision making may be driven by two separate processes—a cognitive evaluation of the benefits and detriments of an action (called utilitarianism) and an affective reaction to potential harm caused by the action (called deontology). Since then, a number of studies have found converging evidence for the involvement of two separate processes in moral decision making (e.g., Conway & Gawronski, 2013; Greene, 2007; Koenigs et al., 2007). Two sets of findings suggest that differences in deontological processing may account for the findings from our second study.

First, Conway and Gawronski (2013) found that an empathy-induction manipulation significantly increased deontological inclinations, but did not affect utilitarian inclinations. That is, by making the target of harm more salient, there was a greater aversion to harm and an increased tendency to make decisions that avoided harming the target, regardless of the possible benefits of the action for others. This explanation matches our results for the low SDO individuals in both studies. Low SDO

individuals are generally empathetic towards low status individuals (Brauer & Bourhis, 2006), but presumably less empathetic towards high status individuals. The empathy may have engendered more deontological inclinations when deciding about the low status target, which made the harm caused by a fair decision (lowering the patient's priority rating) particularly salient to the low SDO individuals. Thus, it may have been more difficult for the low SDO individuals to suppress their deontological inclinations towards the low status target, which was required to make the fair, utilitarian decision.

Second, it may be that high SDO individuals are generally lower in deontological inclinations than low SDO people. To my knowledge, there is no direct evidence for this idea, but some indirect evidence is consistent with it. First, Piff, Stancato, Côté, Mendoza-Denton, and Keltner (2012) demonstrated across a series of studies that higher socio-economic class individuals (and lower socio-economic class individuals who are primed to act like higher class people) exhibit more unethical behaviour. One interpretation of this finding could be that high social status (which correlates with SDO, see Sidanius et al., 2004) is associated with weaker deontological inclinations (e.g., less empathy) without corresponding increases in utilitarian inclinations, thereby producing weaker moral inclinations overall and more unethical behaviour.

But Côté, Piff, and Willer (2012) found that social status was positively associated with utilitarianism, so increased utilitarianism might be expected to compensate for any reduced deontological inclinations in high status (and high SDO) individuals. However, the association made between social status and utilitarianism relied on an older method of measuring the two inclinations, which reveals only the relative strength of deontology vs. utilitarianism, not their individual levels. Therefore, it is

unclear whether Cote et al.'s (2012) findings reflect stronger utilitarian inclinations or weaker deontological inclinations (or both) among high social status individuals compared to low social status individuals.³ Fortunately, Conway and Gawronski (2013) have developed a process dissociation technique to obtain separate measures of utilitarianism and deontology. Future research should investigate SDO differences on the two independent measures. Perhaps high SDO individuals are lower in deontological inclinations than low SDO individuals, with no differences in utilitarianism, which resulted in their relatively harsh treatment of both high status and low status targets in Study 2.

General Discussion

Overall, the results of the two studies provide support for our initial hypothesis that target status moderates the relation between SDO and fairness in a limited resource allocation decision. The studies also revealed some differences, however, between positively framed (Study 1) and negatively framed (Study 2) allocation decisions. Previous research suggests that two forms of morality exist, prescriptive and proscriptive (Janoff-Bulman, Sheikh, & Hepp, 2009). Prescriptive morality relates primarily to positive outcomes and is focused on what should be done. Proscriptive morality relates

³ As an example of the problems with the older method of measuring the two inclinations, previous work using the unidimensional utilitarian-deontological scale initially suggested that utilitarian inclinations were positively associated with psychopathy, Machiavellianism, and belief in the meaninglessness of life (Bartels & Pizarro, 2011). When utilitarian and deontological inclinations were measured separately, however, these prototypically immoral character traits were not actually related to increased utilitarian inclinations, but rather decreased deontological inclinations. Utilitarian inclinations were equal across groups (Conway, Bartels, & Pizarro, in submission). These findings, given the generally positive relation between SDO and social status (Sidanius et al., 2004), suggest that these differences may account for the moderating effects of target status on the relation between SDO and fairness in a negative resource allocation context.

primarily to negative outcomes and is focused on what is a wrong way to act, what we should not do. Perhaps the positive and negative frames elicited different patterns of prescriptive and proscriptive morality reasoning in the two studies, thus producing somewhat different patterns of moderation in high SDO participants.

Overall, results were mixed as to who was fair and when. Taken together, the results suggest that low SDO individuals followed fairness guidelines less closely than high SDO individuals. That is, on average across the two studies, low SDO participants were somewhat less likely to follow guidelines that ensured a fair and equitable distribution of outcomes than high SDO participants. If, as discussed above, deontological inclinations vary as a function of SDO, we can use this as a theoretical foundation on which to build an interpretation of both studies.

In Study 1, it is plausible that affective reactions to harm did not play a significant role in the decision making process. The only salient individual in the decision was the patient described in the file. The harm, in that scenario, was dealt to an anonymous other, part of a group of sick people presented only as numbers in an article. Recent research suggests that individuals do not feel empathetic towards large groups of people. For example, Small, Loewenstein, and Slovic (2007) found that participants engaged in charitable giving based on a distinction between what they call *identifiable victims* and *statistical victims*. People are likely to give more money to identifiable victims than statistical victims, even when they know that giving to statistical victims will make a bigger difference. By getting people to engage in deliberative thought, this discrepancy can be eliminated, but it is eliminated by reducing the amount given to identifiable victims rather than increasing the amount given to statistical victims. The authors suggest

that participants are able to suppress their sympathy towards identifiable victims by engaging in deliberative thought, but that deliberative thought does not help generate sympathy towards statistical victims. In the context of Study 1, this reasoning suggests that those who would be harmed by giving the target an unfairly favorable priority rating were not salient and did not arouse empathy, which would suppress deontological reasoning.

Thus, both low and high SDO participants in Study 1 may have been guided by utilitarian reasoning rather than deontological considerations. But why did target status produce differences in priority ratings for low and high SDO participants if everyone was using utilitarian reasoning? Presumably, SDO is associated with different beliefs about the utility (value) of low and high status persons. That is, although everyone may have used the same process, the elements' weights in participants' utilitarian "calculus" may have varied. People low in SDO believe that the world will be better if group hierarchies are attenuated. As part of their utilitarian reasoning, they might justify being more unfairly favourable towards a low status target by projecting greater overall outcomes from helping this individual. Low SDO persons may convince themselves that, although they are violating fairness rules, they are optimizing outcomes by keeping the patient from unnecessarily consuming health care dollars and keeping his family from needing state assistance. For a high status target, the same low SDO individuals may justify their more fair decision by thinking that the wealthy person can afford health care until he is able to get a transplant, and his wife and children will be well cared for, so there is no reason to violate fairness rules. Conversely, high SDO individuals could make an unfair judgment in favour of a high status target by reasoning that they are keeping a job creator

active and contributing to his community. The low status target, from the perspective of high SDO individuals, is entitled to the organ according to the rules of fairness, so he will still be given a fair priority, but because the low status person does not add much value to the greater society, an unfairly favourable judgment is not justified. In both cases, the utilitarian *inclinations* of each SDO group may be equivalent, and equally biasing, but their attitudes toward and beliefs about the target lead to opposite conclusions.

As a negatively framed allocation decision, Study 2 required participants to decide whether to delay an individual's access to a badly needed resource. In a sense, the task required participants to assign harm to an identifiable victim for the potential advantage of statistical beneficiaries. As such, the most salient aspect of the decision was the harm done to the target person by a fair decision. If high SDO individuals have weaker deontological inclinations, then it may have been easier for them to simply rely on the fairness guidelines in making their allocation decisions. Conversely, low SDO individuals (with stronger deontological inclinations) may have felt a particularly strong aversion to harming the low status target, for whom they felt particular empathy, whereas the high status victim elicited less empathy.

These conclusions are somewhat counterintuitive, because they suggest that the most fair decisions were made by the least moral people (i.e., the people with the weakest deontological inclinations, namely high SDO participants). This counterintuitive aspect of the findings, however, presumably reflects the nature of the allocation decision in Study 2: participants were deciding whether to lower someone's chances for survival, and the fair decision required a harmful priority rating.

It is worth noting that almost everybody was either fair or unfairly favourable to the targets in the studies. That is, very few ratings assigned a lower priority rating to the patient than the fairness guidelines suggested (only 14 out of 105 ratings in Study 1 and 19 out of 252 ratings in Study 2). It is encouraging that people did not use their biases as a basis for discrimination, in that there was very little unfairly negative treatment. SDT states that in order for a society to maintain a stable hierarchy, the inequality must be sufficiently small so that it is not morally offensive (Sidanius, Levin, Federico, & Pratto, 2001). It may be that the best way to maintain a hierarchy without offending others is by being unfairly favourable to some people rather than being unfairly unfavourable to some people. There are certain cases, such as hiring decisions, where it is difficult to separate dominant group favouritism from subordinate group discrimination. When choosing between two job candidates, preferentially hiring a dominant group member is indistinguishable from deliberately not hiring a subordinate group member. In fact, this has been shown to be an effective way of entrenching hierarchies (Pratto et al., 1997). But in the context of larger scale policy decisions, it may be more palatable to both dominant and subordinate group members to propose a law that cuts capital gains tax than to propose a law that diverts funding for children living in poverty to the retirement funds of already wealthy individuals. In fact, studies of American government policies suggest that this may be occurring. When Americans with different income levels hold differing policy opinions, policy decisions strongly reflect the desires of the affluent, with little consideration of the preferences of lower and middle class individuals (Gilens, 2005). It may be that the best way to keep a subordinate group down is by doing favours for those in the dominant group.

Future Directions

There are two studies suggested by interpretations of the present findings based on deontological and utilitarian decision-making. The first study would simply establish that high and low SDO individuals differ in their deontological and utilitarian inclinations. By having participants complete the series of moral dilemmas created by Conway and Gawronski (2013) and the SDO-6 scale (Pratto et al., 2006), it would be possible to test whether deontological inclinations are negatively predicted by SDO, whereas utilitarian inclinations are unrelated to SDO.

The second study would test the hypothesis that SDO predicts differential increases in deontological inclinations in response to specific, empathy inducing stimuli. Several studies have established that deontological inclinations can be increased by presenting participants with empathy inducing images (e.g., Amit & Greene, 2012; Conway & Gawronski, 2013). By again using the battery of moral dilemmas from Conway and Gawronski (2013) and pairing them with pictures of obviously low or high status persons who allegedly constitute the targets in the dilemmas, it would be possible to see whether SDO individuals are differentially susceptible to empathy induction in a decision context. If both of these studies provided support for the hypotheses, confidence in this interpretation of the present studies would be increased substantially.

Conclusions

Across both studies, we found that target status moderated the relation between SDO and the fairness of allocation decisions. People were equally unfairly favourable towards their attitude congruent group in the positively framed allocation decision. In the negatively framed allocation decision, low SDO individuals demonstrated the same

pattern, providing more favourable ratings to the low status target, and more fair ratings to the high status target, whereas high SDO individuals rated both targets equally fairly.

Moral research has generally concluded that the best moral decisions are made when both deontological and utilitarian considerations are weighed, and the final decision is reached by balancing both of these mechanisms (e.g., Bartels & Pizarro, 2011; Conway & Gawronski, 2013; Greene & Haidt, 2002). Thus, in order to make a moral, utilitarian decision, the allocation of harm must be considered by the decision maker. This is not to say that truly moral decisions are always driven by deontological considerations, but rather, in order for a utilitarian decision to be made morally and not just economically, it must involve a full understanding of the subjective and societal cost of making another human suffer for the greater good.

If the moral reasoning interpretation of these studies is valid, then, to my knowledge, Study 2 is unique in providing evidence of a situation in which the quality (in this case, the fairness) of a decision's outcome is negatively related to either moral inclination (in this case, negatively related to deontological reasoning, which is stronger in low SDO persons). It is important to emphasize, however, just how narrow a situation this study created: it was a situation in which the decision maker was weighing the possible removal of a valued designation for an identifiable victim against an unclear number of statistical beneficiaries, with clearly established guidelines for the decision, when the resource had no personal value to the decision maker. In a situation that matches all of these criteria, the data suggest that the best person to make this decision may be the one who feels the least empathy for the target.

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Appendix A – Study 1 Materials

Organ Donation Background Article

Waiting on Life: National Organ Shortage Remains a Serious Problem

By: Thomas White

AP Reporter

Representatives of The American Organ Retention and Transplant Association (AORTA), a special interest group focused on addressing shortages in available organs for patients in need of a transplant, spoke today before the Senate Subcommittee of Labor, Health, and Human Services, in an attempt to increase funding for organ donation programs across all 50 states. “Unfortunately, a patient in need of an organ transplant cannot count on that organ being available. People are simply not donating their organs at the rate we need to meet demand,” reported Frank Mitchell, a spokesperson for AORTA.

According to the United Network for Organ Sharing, a national organ donation registry run by the Department of Health and Human Services, more than 114,000 Americans are currently awaiting an organ transplant, which amounts to roughly 1 in every 2,600 people. The CIA World Factbook estimates that more than 6,800 people per day die in America, but less than 10% of these people are registered to donate their organs when they die.

“The fact is, there shouldn’t be a shortage at all. But organ donation is a difficult decision. Research suggests that people are not necessarily opposed to donating their organs, but they don’t like to think about the issue so they just do nothing, and that means their organs cannot be used to save lives when they pass away,” added Mitchell.

Despite recommendations by AORTA, and several other organizations focused on increasing organ donation, the American government has continually ignored suggestions for concrete steps to increase donation rates, such as conversion to a donor opt-out system, a change that has dramatically increased donation rates in several European countries, including Finland and Sweden.

“Awareness of chronic organ shortages is important. Our number one objective is to save more lives, and without a tangible increase in donations, we can’t do that,” stated Linda Bartell, a volunteer at the American Organ Donation Society. Most people awaiting organ transplant spend at least two years on the donor list. For patients facing life-threatening organ failures, long delays are literally a matter of life and death.

Fictional Letter from American Organ Donation Society



How far that little candle throws his beams! So shines a good deed in a weary world.

~William Shakespeare

Dear Sir or Madam,

I am writing to you as president of the Michigan Chapter of the American Organ Donation Society (AODS) to request your input regarding a case we are currently reviewing. The AODS is a non-profit organization that was established in 1994, created upon the recognition that not enough was being done to increase the number of Americans willing to donate their organs to help save lives.

The mission of the AODS is to help these patients get the organs they need more quickly. One important part of the organ transplant process is identifying those patients most in need. Currently, our organization is working to evaluate specific cases. Obviously, not every patient awaiting transplant can receive immediate help, and some cannot be helped at all.

The waiting list is arranged by priority levels, which are based upon several factors. Patients in the “high priority” level are given attention before all others, and are the first to receive an available organ. Unfortunately, patients’ chances of receiving an organ decrease as they are assigned a lower priority number.

As you can imagine, these decisions are difficult to make. The bylaws of our organization (Section IVa) require more than one opinion to be taken into account in each patient’s case. Thus, the AODS is working to acquire input into the decision made on many different cases. We are asking you to provide your input on one of these.

See the following information on the criteria that are considered in determining priority:

Waiting List Priority Scale

Criteria for Placement

Level 5 High Priority	Time on Wait List: 4+ years or Health Condition: life-threatening
Level 4 Above Average Priority	Time on Wait List: 2-4 years or Health Condition: critical

Level 3 Moderate Priority	Time on Wait List: 1-2 years or Health Condition: poor
Level 2 Average Priority	Time on Wait List: 7-12 months or Health Condition: deteriorating
Level 1 Low Priority	Time on Wait List: 1-6 months or Health Condition: relatively good

You will now be asked to read some information describing a randomly selected person who is on the transplant list. After reading this information, please indicate which priority level you would recommend for this particular patient. Your input, along with that of other research participants and members of nonprofit organizations across the country, will be factored into our final decisions. Please be assured that all answers are kept anonymous.

On behalf of the AODS, we thank you for your time and appreciate your consideration of our cause.

Sincerely,

Alice Murray
President, Michigan Chapter
American Organ Donation Society

Patient Files and Priority Rating

American Organ Donation Society (AODS)

Waiting List Priority Scale

High Status Target (Business Owner):

Patient Case #2141-S

Full Name: John William Kassa

Age: 42

Family status: Married, with two children

Occupation: Business owner

Annual Income: \$160,000

Diagnosis: Congestive heart failure

Time on Transplant List: 18 months

Patient Summary: Shortly after his 40th birthday, John Kassa was diagnosed with congestive heart failure. After nearly a year of treatments proved ineffective, Mr. Kassa was put onto the heart transplant list. However, the delay has taken its toll on his health, which has steadily deteriorated. According to his family doctor, Dr. Steven Walling, “John’s condition is not yet critical, but he is definitely in poor health, and without a transplant, it’s only going to get worse.”

Low Status Target (Grocery Store Clerk):

Patient Case #2141-S

Full Name: John William Kassa

Age: 42

Family status: Married, with two children

Occupation: Clerk at grocery store

Annual Income: \$28,000

Diagnosis: Congestive heart failure

Time on Transplant List: 18 months

Patient Summary: Shortly after his 40th birthday, John Kassa was diagnosed with congestive heart failure. After nearly a year of treatments proved ineffective, Mr. Kassa was put onto the heart transplant list. However, the delay has taken its toll on his health, which has steadily deteriorated. According to his family doctor, Dr. Steven Walling, “John’s condition is not yet critical, but he is definitely in poor health, and without a transplant, it’s only going to get worse.”

Please circle the priority level that you wish to assign to the patient in this case. All answers will remain anonymous.

Low Priority	Average Priority	Moderate Priority	Above Average Priority	High Priority
1	2	3	4	5

Post-Decision Questionnaire (Hafer, 2011)

1-7 Scale, not at all – very much, plus one open ended question

Please answer these questions according to your personal opinion. There are no right or wrong answers.

1. How similar do you think the patient in the article is to you?
2. How relevant do you feel justice or fairness is to how this patient is treated?
3. In this situation, how much do you care about this patient's wellbeing?
4. How much do you identify with the patient?
5. How important do you feel it is that this patient is treated according to what is fair or just?
6. To what extent can you imagine what it would be like to be the patient in this situation?
7. How much should justice or fairness (as opposed to other issues) be considered in deciding what to do with this patient?
8. To what extent can you feel what the patient must feel in this situation?
9. To what extent do you think this patient deserves to be helped?
10. To what extent do you think this patient is in need of help?
11. What is your current mood?
1-7 Scale, very negative – very positive
12. Using the space below, please describe what you were thinking while you decided which priority level should be assigned to the patient.

Interpersonal Reactivity Index (Davis, 1983)

1-5 Scale, does not describe me very well – describes me very well

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you. **READ EACH ITEM CAREFULLY BEFORE RESPONDING.** Please answer as honestly as you can.

1. I daydream and fantasize, with some regularity, about things that might happen to me.
2. I often have tender, concerned feelings for people less fortunate than me.
3. I sometimes find it difficult to see things from the "other guy's" point of view.
4. Sometimes I don't feel very sorry for other people when they are having problems.
5. I really get involved with the feelings of the characters in a novel.
6. In emergency situations, I feel apprehensive and ill-at-ease.
7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.
8. I try to look at everybody's side of a disagreement before I make a decision.
9. When I see someone being taken advantage of, I feel kind of protective towards them.
10. I sometimes feel helpless when I am in the middle of a very emotional situation.
11. I sometimes try to understand my friends better by imagining how things look from their perspective.
12. Becoming extremely involved in a good book or movie is somewhat rare for me.
13. When I see someone get hurt, I tend to remain calm.
14. Other people's misfortunes do not usually disturb me a great deal.
15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.
16. After seeing a play or movie, I have felt as though I were one of the characters.
17. Being in a tense emotional situation scares me.

18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.
19. I am usually pretty effective in dealing with emergencies.
20. I am often quite touched by things that I see happen.
21. I believe that there are two sides to every question and try to look at them both.
22. I would describe myself as a pretty soft-hearted person.
23. When I watch a good movie, I can very easily put myself in the place of a leading character.
24. I tend to lose control during emergencies.
25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.
26. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.
27. When I see someone who badly needs help in an emergency, I go to pieces.
28. Before criticizing somebody, I try to imagine how I would feel if I were in their place.

Social Dominance Orientation Scale-6 (Sidanius & Pratto, 1999)

Below are a series of statements with which you may either agree or disagree. For each statement, please indicate the degree of your agreement or disagreement.

1-7 Scale, strongly disagree – strongly agree

1. Some groups of people are just more worthy than others.
2. We should do what we can to equalize conditions for different groups (R).
3. In getting what your group wants, it is sometimes necessary to use force against other groups.
4. If certain groups of people stayed in their place, we would have fewer problems.
5. We would have fewer problems if we treated different groups more equally (R).
6. To get ahead in life, it is sometimes necessary to step on other groups.
7. No one group should dominate in society (R).
8. Group equality should be our ideal (R).
9. All groups should be given an equal chance in life (R).
10. We must increase social equality (R).
11. Superior groups should dominate inferior groups.
12. It's probably a good thing that certain groups are at the top and other groups are at the bottom.
13. We must strive to make incomes more equal (R).
14. Sometimes other groups must be kept in their place.
15. It would be good if all groups could be equal (R).
16. Inferior groups should stay in their place.

Appendix B – Study 2 Materials

Organ Donation Background Article

Waiting on Life: National Organ Shortage Remains a Serious Problem

By: Thomas White

AP Reporter

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“The fact is, there shouldn’t be a shortage at all. But organ donation is a difficult decision. Research suggests that people are not necessarily opposed to donating their organs, but they don’t like to think about the issue so they just do nothing, and that means their organs cannot be used to save lives when they pass away,” added Mitchell.

Despite recommendations by AORTA, and several other organizations focused on increasing organ donation, the American government has continually ignored suggestions for concrete steps to increase donation rates, such as conversion to a donor opt-out system, a change that has dramatically increased donation rates in several European countries, including Finland and Sweden.

“Awareness of chronic organ shortages is important. Our number one objective is to save more lives, and without a tangible increase in donations, we can’t do that,” stated Linda Bartell, a volunteer at the American Organ Donation Society. Most people awaiting organ transplant spend at least two years on the donor list. For patients facing life-threatening organ failures, long delays are literally a matter of life and death.

Fictional Letter from American Organ Donation Society



How far that little candle throws his beams! So shines a good deed in a weary world.

~William Shakespeare

Dear Sir or Madam,

I am writing to you as president of the Michigan Chapter of the American Organ Donation Society (AODS) to request your input regarding specific cases we are currently reviewing. The mission of the AODS is to help these patients get the organs they need more quickly.

One important part of the organ transplant process is identifying those patients most in need. Obviously, not every patient awaiting transplant can receive immediate help, and some cannot be helped at all. The waiting list is arranged by priority levels, which are based upon several factors. Patients in the “high priority” level are given attention before all others, and are the first to receive an available organ. Unfortunately, patients’ chances of receiving an organ decrease as they are assigned a lower priority number, making these decisions very difficult and extremely important.

Recently, things have gotten even worse because fewer organs have been available than expected. Therefore, we have had to revise our priority rating system to make it more difficult to receive a “high priority” rating. As a result, we unfortunately must reassess a number of patient files, in order to assign patients **lower** priorities consistent with the new rating criteria. **This means a number of patients will not be receiving organs as early as they were previously told, and maybe not at all.** The bylaws of our organization (Section IVa) require more than one opinion to be taken into account in each patient’s case. Thus, the AODS is working to acquire input into the decision made on many different cases. We are asking you to provide your input on a small number of these.

Thus, in order to accommodate the reduced number of organs, we have had to create significantly more stringent guidelines for distributing organs. Below are the revised criteria that are currently being used in determining priority. Please read them carefully:

Waiting List Priority Scale

Criteria for Placement

Level 7 High Priority	Time on Wait List: 4+ years or Health Condition: life-threatening
Level 6	
Level 5	
Level 4 Moderate Priority	Time on Wait List: 1-2 years or Health Condition: poor
Level 3	
Level 2	
Level 1 Low Priority	Time on Wait List: 1-6 months or Health Condition: relatively good

You will now be asked to read two case files, each describing a randomly selected person who was previously rated as a high priority (Level 7). After carefully reading this information, please indicate whether a lower priority might be assigned to this patient by indicating which priority level you would recommend. Your input, along with that of other research participants and members of nonprofit organizations across the country, will be factored into our final decisions. Please be assured that all answers are kept anonymous.

On behalf of the AODS, we thank you for your time and appreciate your consideration of our cause.

Sincerely,

Alice Murray
President, Michigan Chapter
American Organ Donation Society

Patient Files and Priority Rating

American Organ Donation Society (AODS)

Waiting List Priority Scale

High Status Target (Business Owner):

Patient Case #2028-W

Full Name: Perry Dimery

Age: 49

Family status: Married, with one child

Occupation: Business Owner

Annual Income: \$145,000

Diagnosis: Coronary artery disease w/ scarring

Time on Transplant List: 16 months

Condition: Poor

Primary Symptoms:

- angina
- difficulty breathing or shortness of breath
- indigestion/ choking feeling
- Rapid or irregular heart beats

Low Status Target (Grocery Store Clerk):

Patient Case #3177-W

Full Name: John Kassa

Age: 42

Family status: Married, with two children

Occupation: Grocery store clerk

Annual Income: \$28,000

Diagnosis: Congestive heart failure

Time on Transplant List: 14 months

Current Condition: Poor

Primary Symptoms:

- fatigue and weakness
- shortness of breath
- swollen ankles
- accumulation of fluid in the abdomen
- bluish skin around the mouth

Please circle the priority level that you wish to assign to the patient in this case. All answers will remain anonymous.

Low Priority				Moderate Priority			High Priority
1	2	3	4	5	6	7	

Demographics

Are you male or female?

-Male

-Female

Please tell us your age.

What is your approximate household income?

- \$0 – \$29,999
- \$30,000 - \$49,999
- \$50,000 - \$74,999
- \$75,000 - \$99,999
- \$100,000 - \$149,999
- \$150,000+

Post-Decision Questionnaire (Hafer, 2011)

1-7 Scale, not at all – very much, plus one open ended question

Please answer these questions according to your personal opinion. There are no right or wrong answers.

1. Excluding his health status, how similar do you think the patient in the article is to you?
2. How relevant do you feel justice or fairness is to how this patient is treated?
3. In this situation, how much do you care about this patient's wellbeing?
4. Excluding his health status, how much do you identify with the patient?
5. To what extent do you think this patient deserves to be helped?
6. What is your current mood?
1-7 Scale, very negative – very positive

Social Dominance Orientation Scale-6 (Sidanius & Pratto, 1999)

Below are a series of statements with which you may either agree or disagree. For each statement, please indicate the degree of your agreement or disagreement.

1-7 Scale, strongly disagree – strongly agree

1. Some groups of people are just more worthy than others.
2. We should do what we can to equalize conditions for different groups (R).
3. In getting what your group wants, it is sometimes necessary to use force against other groups.
4. If certain groups of people stayed in their place, we would have fewer problems.
5. We would have fewer problems if we treated different groups more equally (R).
6. To get ahead in life, it is sometimes necessary to step on other groups.
7. No one group should dominate in society (R).
8. Group equality should be our ideal (R).
9. All groups should be given an equal chance in life (R).
10. We must increase social equality (R).
11. Superior groups should dominate inferior groups.
12. It's probably a good thing that certain groups are at the top and other groups are at the bottom.
13. We must strive to make incomes more equal (R).
14. Sometimes other groups must be kept in their place.
15. It would be good if all groups could be equal (R).
16. Inferior groups should stay in their place.

Global Belief in a Just World Scale (Lipkus, 2001)

The following is a study of opinions about the good and bad things that happen to people. The best answer to each question is your personal opinion. You may find yourself agreeing strongly with some of the statements, disagreeing just as strongly about others, and perhaps uncertain about others. Whether you agree or disagree with any statement, you can be sure that many people feel the same as you do.

Mark each statement in the right margin according to how much you agree or disagree with it. Circle +1, +2, +3, or -1, -2, -3, depending on how you feel in each case.

-3 - +3 scale, strongly agree – strongly disagree

1. I feel that people get what they are entitled to have.
2. I feel that a person's efforts are noticed and rewarded.
3. I feel that people earn the rewards and punishments they get.
4. I feel that people who meet with misfortune have brought it on themselves.
5. I feel that people get what they deserve.
6. I feel that rewards and punishments are fairly given.
7. I basically feel that the world is a fair place.

Attention Check

If you are reading this carefully, please select “0”. (Inserted into Global Belief in a Just World Scale)

-3 - +3 scale, strongly agree – strongly disagree

Appendix C – Ethics Approval Forms

Study 1 Ethics Approval Form



Department of Psychology The University of Western Ontario
 Room 7418 Social Sciences Centre,
 London, ON, Canada N6A 5C1
 Telephone: (519) 661-2067 Fax: (519) 661-3961

Use of Human Subjects - Ethics Approval Notice

Review Number	12 08 04	Approval Date	12 08 29
Principal Investigator	Jim Olson/Joel Armstrong	End Date	12 10 01
Protocol Title	Advancing policy on organ donation		
Sponsor	n/a		

This is to notify you that The University of Western Ontario Department of Psychology Research Ethics Board (PREB) has granted expedited ethics approval to the above named research study on the date noted above.

The PREB is a sub-REB of The University of Western Ontario's Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario. (See Office of Research Ethics web site: <http://www.uwo.ca/research/ethics/>)

This approval shall remain valid until end date noted above assuming timely and acceptable responses to the University's periodic requests for surveillance and monitoring information.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the PREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of research assistant, telephone number etc). Subjects must receive a copy of the information/consent documentation.

Investigators must promptly also report to the PREB:

- a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
- b) all adverse and unexpected experiences or events that are both serious and unexpected;
- c) new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to the PREB for approval.

Members of the PREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the PREB.



Clive Seligman Ph.D.

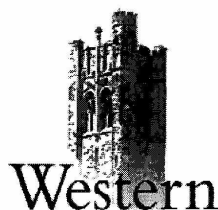
Chair, Psychology Expedited Research Ethics Board (PREB)

The other members of the 2012-2013 PREB are: Mike Atkinson (Introductory Psychology Coordinator), Rick Goffin, Riley Hinson Albert Katz (Department Chair), Steve Lupker, and TBA (Graduate Student Representative)

CC: UWO Office of Research Ethics

This is an official document. Please retain the original in your files

Study 2 Ethics Approval Form



Department of Psychology The University of Western Ontario
 Room 7418 Social Sciences Centre,
 London, ON, Canada N6A 5C1
 Telephone: (519) 661-2067 Fax: (519) 661-3961

Use of Human Subjects - Ethics Approval Notice

Review Number	13 03 21	Approval Date	13 03 13
Principal Investigator	Jim Olson/Joel Armstrong	End Date	14 03 10
Protocol Title	Advancing policy on organ donation 111		
Sponsor	n/a		

This is to notify you that The University of Western Ontario Department of Psychology Research Ethics Board (PREB) has granted expedited ethics approval to the above named research study on the date noted above.

The PREB is a sub-REB of The University of Western Ontario's Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario. (See Office of Research Ethics web site: <http://www.uwo.ca/research/ethics/>)

This approval shall remain valid until end date noted above assuming timely and acceptable responses to the University's periodic requests for surveillance and monitoring information.


During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the PREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of research assistant, telephone number etc). Subjects must receive a copy of the information/consent documentation.

Investigators must promptly also report to the PREB:

- a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
- b) all adverse and unexpected experiences or events that are both serious and unexpected;
- c) new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to the PREB for approval.

Members of the PREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the PREB.


 Clive Seligman Ph.D.

Chair, Psychology Expedited Research Ethics Board (PREB)

The other members of the 2012-2013 PREB are: Mike Atkinson (Introductory Psychology Coordinator), Rick Goffin, Riley Hinson, Albert Katz (Department Chair), Steve Lupker, and Adam Piraino (Graduate Student Representative)

CC: UWO Office of Research Ethics

This is an official document. Please retain the original in your files

Joel B. Armstrong

University of Western Ontario
Department of Psychology
Social Science Centre – London, Ontario Canada N6A 5C2

EDUCATION

Master of Science, Social Psychology, London, Ontario, 2013

Thesis: The Moderating Effects of Target Status on the Relation Between SDO and Fairness

Advisor: Dr. James M. Olson

Bachelor of Arts, Honours, Psychology, Queen's University, Kingston, Ontario, 2007

Thesis: The Effect of Active Driving Pedals on Sleepiness While Driving

Advisor: Dr. Alistair W. MacLean

HONOURS AND AWARDS

2011-2013 Western Graduate Research Scholarship

2004-2007 Dean's Honour List, Queen's University

COMMITTEE WORK

Sept. 2012 – present M.Sc. Representative, Western Social Psychology Area Committee

Sept. 2006 – April 2007 Merchandise Coordinator, Psychology Departmental Student Council, Queen's University

Sept. 2006 – April 2007 Webmaster, Psychology Departmental Student Council, Queen's University

CONFERENCE PRESENTATIONS AND POSTERS

Armstrong, J. B., & Olson, J. M. (2013, June). The Rich Get Richer: Social Dominance Orientation Predicts Unfairly Favourable Treatment. Poster presented at the Canadian Psychological Association Convention, Quebec City, QC.

Armstrong, J. B., & Olson, J. M. (2013, May). Tough But Fair: Target Status Moderates the Relation Between Social Dominance Orientation and Fairness. Poster presented at the Association for Psychological Science Convention, Washington, DC.

Armstrong, J. B., & Olson, J. M. (2013, May). Tough But Fair: Target Status Moderates the Relation Between Social Dominance Orientation and Fairness. Poster presented at the Western-Waterloo Annual Social Psychology Conference, Waterloo, ON.

Armstrong, J. B., & Olson, J. M. (2013, January). The Prime We Need, Not the Prime We Deserve: Attainability Decreases Prosocial Motivation for Real but not Fictional Moral Exemplars. Poster presented at the Society for Personality and Social Psychology Conference, New Orleans, LA.

Armstrong, J. B. & MacLean, A. W. (2007, April). Active Pedals: The Effects of Exercise on Sleepiness While Driving. Poster presented at the Queen's University Psychology Capstone Honours Research Conference, Queen's University, Kingston, ON.

RESEARCH EXPERIENCE

Sept. 2011 – present **University of Western Ontario**, Supervisor: J. M. Olson, Ph.D.

Sept. 2006 – April 2007 **Queen's University**, Supervisor: A. W. MacLean, Ph.D.

TEACHING EXPERIENCE

Jan. 2013 – April 2013 **Tutorial Instructor**, University of Western Ontario
PSYC 3723G Attitudes and Attitude Change

Sept. 2012 – Dec. 2012 **Teaching Assistant**, University of Western Ontario
PSYC 2070B Social Psychology

Jan. 2012 – April 2012 **Tutorial Instructor**, University of Western Ontario
PSYC 3723G Attitudes and Attitude Change

Sept. 2011 – Dec. 2011 **Teaching Assistant**, University of Western Ontario
PSYC 2990A Applications of Psychology

SOCIETY MEMBERSHIP

Jan. 2013 – present Canadian Psychological Association

June 2012 – present Association for Psychology Science

Dec. 2011 – present Society for Personality and Social Psychology